

Abstract of the Disclosure

Disclosed are methods for forming a conductive film or a conductive pattern on a semiconductor substrate, including nitrifying a semiconductor substrate on which a tungsten film having a partially oxidized surface is formed to form a tungsten nitride film on the surface of the tungsten film, oxidizing the surface of the tungsten film having the tungsten nitride film to change the tungsten nitride film into a tungsten oxy-nitride film, and removing the tungsten oxy-nitride film and any residue generated by a reaction of tungsten from the surface of the tungsten film to form a tungsten film. Complete removal of residues generated by a reaction of tungsten from the surface of the tungsten film is made possible. Therefore, resistance of the tungsten film may be reduced, and failures generated by reacted residues formed on tungsten films may be prevented.